



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

MATHEMATICAL LITERACY
COMMON TEST
JULY 2021

MARKS: 50

TIME: 1 hour

This question paper consists of 6 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO questions. Answer ALL the questions.
2. Number the answers correctly according to the numbering system used in this question paper.
3. Start EACH question on a NEW page.
4. You may use an approved calculator (non-programmable and non-graphical). Unless stated otherwise.
5. Show ALL the calculation clearly.
6. Round off ALL the final answers appropriately according to the given context, unless stated otherwise.
7. Indicate units of measurements, where applicable.
8. Maps and diagrams are NOT necessary drawn to scale, unless stated otherwise.
9. Write neatly and legibly.

QUESTION 1

1.1 Mrs Pillay's cheque account balance is –R900. Her salary was deposited into her cheque account. The new balance is R8 200 after her salary was deposited.

1.1.1 Explain the term *deposit* according to the given context. (2)

1.1.2 Determine Mrs Pillay's salary that was deposited into her bank account. (2)

1.1.3 The deposit fee for this type of account: R5+1, 20% of the value deposited.

Write down the minimum bank charges for the salary deposited. (2)

1.2 Mrs Pillay intends to purchase a birthday present for her mother. Table 1 below shows her investment plan for two types of interest offered by the bank.

Table 1: R1000 invested at 8% p.a for 4 years

No. of years	0	1	2	3	4
Investment A	R1 000	R1 080	R1 160	R1 240	R1 320
Investment B	R1 000	R1 080	R1 166.40	R1 259.71	R1 360.49

Study the table above and answer the questions that follow

1.2.1 Identify the type of interest used on Investment A and explain your answer (3)

1.2.2 Use the investment of R1 000 and the interest rate to show how the amount of R1 259.71 was calculated in investment B at the end of the 3rd year. (4)

1.3

Mrs Pillay looked at the following advertisement. Study the advertisement and answer the questions that follow.

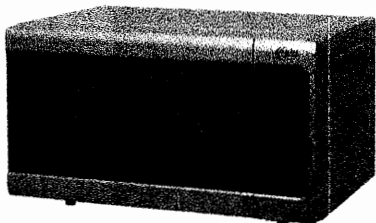
<p>Defy fridge:</p> <p>Cash price: R4 450</p> <p>Save R500</p> <p>OR</p> <p>Terms: R445 deposit and 24</p>	<p>Defy four plate stove:</p> <p>R2 999 and 20% discount to the first 10 customers</p>
<p>Microwave (univa):</p> <p>Cash price R1 399</p> <p>OR</p> <p>Credit terms: R152* pm for 24 months</p>	

- 1.3.1 Determine the percentage deposit for the defy fridge. (3)
- 1.3.2 Calculate the total amount of discount for the Defy four plate stove. (2)
- 1.3.3 Calculate the total cost for the microwave, if Mrs Pillay buys it on credit terms. (2)
- 1.3.4 Write down ONE advantage and ONE disadvantage of buying on credit. (2)

1.4

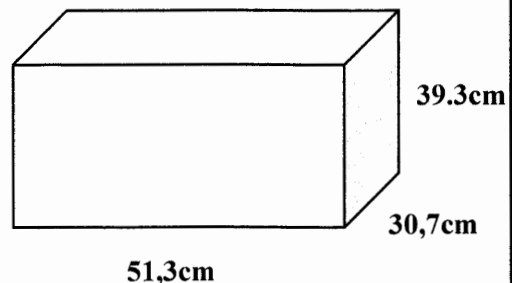
Sandile decides to purchase a microwave for his mother on her birthday.

Picture of the microwave



Source//<http://www.google.com/shopping>

Diagram of the microwave



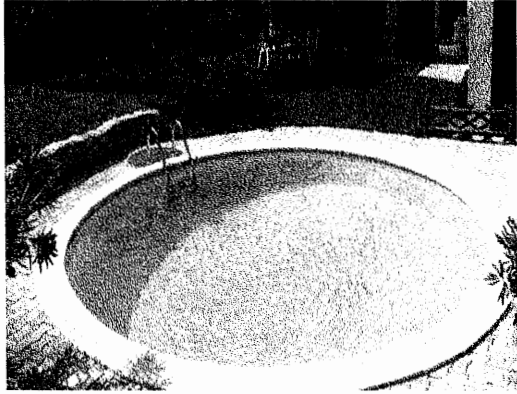
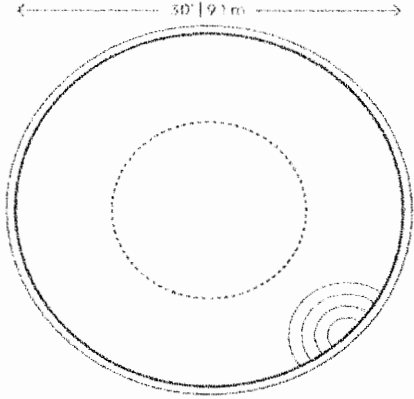
Determine the volume of the microwave in cubic metres (cm^3)

You may use the formula : **Volume of rectangular prism = length \times width \times height** (3)

[25]

QUESTION 2

- 2.1 Mr Smith has a Circular swimming pool erected in his garden. The diameter of the swimming pool is 9.1 m and the depth is 1.2m.

<p>Picture of the swimming pool</p>  <p>Source://http://google.com/images Depth = 1,2m</p>	<p>Top view of circular swimming pool.</p>  <p>Diameter = 9.1m</p>
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- 2.1.1 Calculate the volume of the circular swimming pool in m^3 .
You may use the formula:

$$\text{Volume of cylinder} = \pi \times \left(\frac{\text{diameter}}{2} \right)^2 \times \text{height}, \text{ use } \pi = 3.142$$

(3)

- 2.1.2 Hence, calculate the capacity of water required to fill 80% of the pool's volume..
Note 1 $m^3 = 1000l$

(4)

- 2.1.3 Give ONE reason why Mr Smith does not fill the pool to its full capacity.

(2)

- 2.1.4 Mr Smith paid R5.50 per kilolitre in May 2020, if the predicted inflation rate for May 2021 is 4.2% p.a

Determine the new price per kilolitre for May 2021.

(2)

2.2

Mrs Smith kept the record of all children who participated in swimming during April 2021. Table 2 below shows the age of the children

Table 2: Recorded age group for swimmers in a month of April 2021

12	14	13	14	17	18	17	15	16	17
10	11	12	9	8	10	13	10	15	

- 2.2.1 Is the data in Table 2 discrete or continuous? Give a reason for your answer. (2)
- 2.2.2 Name one method that Mrs Smith used to collect the data above. (2)
- 2.2.3 Determine the median age for the above data. (3)
- 2.2.4 Calculate the range of the above data. (2)
- 2.2.5 Determine the mean age for the above data. (3)
- 2.2.6 Determine the modal age for the swimmers. (2)

[25]

TOTAL MARKS: 50